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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,021	04/26/2001	Masahiro Yamada	SON-2084	6932

7590 01/08/2003

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EXAMINER

SCHWARTZ, JORDAN MARC

ART UNIT	PAPER NUMBER
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2873

DATE MAILED: 01/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/842,021	YAMADA ET AL.	
	Examiner	Art Unit	
	Jordan M. Schwartz	2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-114 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-114 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                            | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____   |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)        | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ | 6) <input type="checkbox"/> Other: _____                                    |

***R striction/Election of Species***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-18, 52-70, 99-102, and 112-114 drawn to optical devices or optical systems comprising optical devices, classified in class 359, subclass 796 (as well as other classes and subclasses based upon the distinct species claimed). The method claims 112-114 have been grouped together with Group I because they could be searched together with the species claims 99-102 without creating an undue burden on the examiner.
- II. Claims 19-51, 71-98 and 107-111, drawn to methods of producing optical devices, classified in class 264, subclass 1.1 (as well as other classes and subclasses based upon the distinct species claimed).
- III. Claims 103-106, drawn to a metallic mold, classified in class 249, subclass 105.

For purposes of restriction it is assumed that claim 24 depends from claim 19 (not 18) since claim 19 is a method claim similar to claim 24 while claim 18 is a product claim. Furthermore, for purposes of restriction it is assumed that claim 73 depends from claim 71 (claim 73 states that it depends from claim 73). Furthermore, for purposes of restriction it is assumed that claim 76 depends from claim 73 (claim 76 states that it depends from claim 77 and therefore is not dependent from a prior claim).

The inventions are distinct, each from the other because of the following reasons:

Inventions in Group II and Group I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1)

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that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process. Specifically, with reference to claims 1-18 and Group II, the product as claimed can be made by a method of using a laser or any sharp instrument to form a first concavity in an optical material, pouring a liquid material into the concavity, and letting it harden. With reference to claims 52-70 and Group II, the product as claimed can be made by a method of using a laser or any sharp instrument to form the hole that communicates with the second face and cementing the convex lens to the first optical portion. . With reference to claims 99-102 and Group II, the product as claimed can be made by a method of inserting a pin in an optical material and letting it harden, polishing and grinding, and having a hole in a front end of a concavity that remains in a first optical portion. Therefore, with respect to claims 1-18, 52-70 and 99-102, the optical devices or systems can be made by any method of forming the lens that does not require the injecting molding steps of claims 19-24, does not require the steps of forming a resist with a hole as set forth in claims 25-33, the steps of flattening and bonding as set forth in claims 34-42, 48-51 and 89-98, the steps of forming resist films with windows as set forth in claims 43-47 and 80-88, the steps of molding and flattening of claims 71-79, the steps of forming a concavity with a pin and molding of claims 107-111.

Inventions in Group III and Group I are related as apparatus and product made. The inventions in this relationship are distinct if either or both of the following can be

shown: (1) that the apparatus as claimed is not an obvious apparatus for making the product and the apparatus can be used for making a different product or (2) that the product as claimed can be made by another and materially different apparatus (MPEP § 806.05(g)). In this case the product as claimed can be made by another and materially different apparatus such as by lathing, grinding, or any method that does not require the use of a metallic mold and does not require a pin projecting through a wall of a cavity of an optical material.

Inventions in Group II and Group III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). With respect to claims 19-51 and 71-98 of Group II, and Group III, the process as claimed could be practiced by another materially different apparatus such as by any apparatus that does not require a metallic mold as well as a pin projecting through a wall of a cavity of an optical material. With respect to claims 107-108 of Group II, and Group III, the apparatus as claimed can be used to practice another and materially different process such as by any process that does not require polishing and grinding such that a hole of a front end of the concavity remains. With respect to claims 109-111 of Group II, and Group III, the apparatus as claimed can be used to practice another and materially different process such as by any process that does not require filled optical material to have a refractive index different from that of the first optical portion.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I or Group III, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group III is not required for Groups I or Group II, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

This application contains claims directed to the following patentably distinct species of the claimed invention:

Group I contains the following patentably distinct species. Group Ia, claims 1-18, directed to a species of optical device (and system containing such optical device) having a first optical portion with a concavity and a second optical portion inserted into the concavity and having a differing refractive index; Group Ib, claims 52-70, directed to a species of optical device having a convex lens, a first optical portion with a concave face contacting a convex face of the convex lens, a hole communicating with a face of the first optical portion and part of the convex lens exposed in the hole; Group Ic, claims 99-102 and 112-114, directed to a species of optical device formed by a pin in an optical

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material in a molten state, hardening the material and wherein a concavity is formed with a hole remains in a first optical portion. As stated above, claims 112-114 could be searched together with the species claims 99-102 without creating an undue burden on the examiner.

Group II contains the following patentably distinct species. Group IIa, claims 19-24, directed to a species of method of producing an optical device comprising a first optical portion with a concavity and a second optical portion inserted into the concavity and having a differing refractive index and injecting molding steps to fill the concavity; Group IIb, claims 25-33, directed to a species of method of producing an optical device comprising a first optical portion with a concavity and a second optical portion inserted into the concavity and having a differing refractive index, and forming a resist having a hole, forming a concavity corresponding to the hole by etching, removing a resist and filling the concavity; Group IIc, claims 34-42 and 48-51, directed to a species of method of producing an optical device comprising a first optical portion with a concavity and a second optical portion inserted into the concavity and having a differing refractive index, and forming on a third optical portion the first optical portion to bury a projection on the third optical portion and removing the third portion from the first portion to expose a concavity; Group IId, claims 43-47, directed to a species of method of producing an optical device comprising a first optical portion with a concavity and a second optical portion inserted into the concavity and having a differing refractive index, and forming resist films having windows, forming concavities corresponding to the windows, removing the resist films, and filling the concavities; Group IIE, claims 71-79, directed to

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a species of method of producing an optical device having a first optical portion closely contacting a convex face of a convex lens and using a mold with a projection to mold a first optical portion with a concavity, filling the concavity, and forming a hole; Group II<sub>f</sub>, claims 80-88, directed to a species of method of producing an optical device having a first optical portion closely contacting a convex face of a convex lens and forming a resist film having a window, forming a concavity corresponding to the window, removing the resist film, and filling the concavity; Group II<sub>g</sub>, claims 89-98, directed to a species of method of producing an optical device having a first optical portion closely contacting a convex face of a convex lens and forming on a third optical portion the first optical portion to bury a projection on the third optical portion and removing the third portion from the first portion to expose a concavity, and forming holes; Group II<sub>h</sub>, claims 107-111, directed to a species of method of producing an optical device by using a metallic mold having a concavity formed by a pin that penetrates through a wall of the concavity from the outside and projects into the concavity, and filling the concavity with an optical material in a molten or softened state.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim



is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

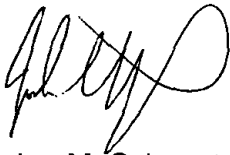
Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordan M. Schwartz whose telephone number is (703) 308-1286. The examiner can normally be reached on Monday to Friday (8:00-5:30), alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached at (703) 308-4883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read 'Jordan M. Schwartz', with a large, stylized flourish at the end.

Jordan M. Schwartz  
Primary Examiner  
Art Unit 2873  
January 7, 2003